

**Commonwealth of Kentucky
Division for Air Quality**

PERMIT APPLICATION SUMMARY FORM

Completed by: Ron Schneider

GENERAL INFORMATION:

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|----------------------------|--|
| Name: | Arkema, Inc. |
| Address: | 2316 Highland Ave. Carrollton, KY 41008 |
| Date application received: | 8/10/06 |
| SIC Code/SIC description: | 2819, Industrial Inorganic Chemicals, NEC |
| Source ID: | 21-041-00002 |
| Source A.I. #: | 690 |
| Activity ID: | APE20060008 |
| Permit: | V-04-044 (R-2) |

APPLICATION TYPE/PERMIT ACTIVITY:

| | |
|---|---|
| <input type="checkbox"/> Initial issuance | <input type="checkbox"/> General permit |
| <input checked="" type="checkbox"/> Permit modification | <input type="checkbox"/> Conditional major |
| __Administrative | <input type="checkbox"/> Title V |
| __x_Minor | <input type="checkbox"/> Synthetic minor |
| __Significant | <input type="checkbox"/> Operating |
| <input type="checkbox"/> Permit renewal | <input type="checkbox"/> Construction/operating |

COMPLIANCE SUMMARY:

| | |
|---|---|
| <input type="checkbox"/> Source is out of compliance | <input type="checkbox"/> Compliance schedule included |
| <input checked="" type="checkbox"/> Compliance certification signed | |

APPLICABLE REQUIREMENTS LIST:

| | |
|--|---|
| <input type="checkbox"/> NSR | <input type="checkbox"/> NSPS |
| <input type="checkbox"/> SIP | <input type="checkbox"/> PSD |
| <input type="checkbox"/> NESHAPS | <input type="checkbox"/> Other |
| <input type="checkbox"/> Netted out of PSD/NSR | <input checked="" type="checkbox"/> Not major modification per 401 KAR 51:001, 1(116)(b) |

MISCELLANEOUS:

- ☐ Acid rain source
- ☐ Source subject to 112(r)
- ☐ Source applied for federally enforceable emissions cap
- ☐ Source provided terms for alternative operating scenarios
- ☒ Source subject to a MACT standard
- ☐ Source requested case-by-case 112(g) or (j) determination
- ☐ Application proposes new control technology
- ☒ Certified by responsible official
- ☐ Diagrams or drawings included
- ☒ Confidential business information (CBI) submitted in application
- ☐ Pollution Prevention Measures
- ☐ Area is non-attainment (list pollutants):

EMISSIONS SUMMARY:

| Pollutant | Actual (tpy) | Potential (tpy) |
|--------------------------------|--------------|-----------------|
| PM | 5.87 | 10.26 |
| PM ₁₀ | 0.56 | 10.26 |
| SO ₂ | 17.77 | 259.5 |
| NO _x | 21.52 | 75.94 |
| CO | 25.41 | 63.80 |
| VOC | 82.63 | 90.78 |
| | | |
| Single HAPs \geq 10 tpy | None | None |
| Source wide HAPs \geq 25 tpy | None | None |

SOURCE DESCRIPTION:

Arkema Incorporated, Carrollton Plant, is a batch specialty chemical manufacturing producer of various products, including organotins. Specialty chemicals include plastic stabilizers, foam catalysts, industrial catalysts and glass coatings. The plant also operates a wastewater treatment plant (KPDES Permit) and hazardous waste incinerator (RCRA Permit). Both organic and inorganic metallic compounds characterize Arkema products. The plant operates reactors, boilers, blenders, centrifuges, condensers/heat exchangers, decanters, stills, and organic and inorganic storage tanks. A pilot plant (B-37) is used to scale up production and to resolve production glitches. Production areas, by building number or pad area, are noted as follows: B-02, B03, B05, B06, B-17, B22, B27, B28, B32, B33, B39, B48, B-52, B-55, B-67 and B-74.

EMISSION AND OPERATING CAPS DESCRIPTION:

| Area | Process/Equipment | Capacity limit |
|------|--------------------------|---|
| 02 | Indirect heat exchangers | To preclude the applicability of Regulation 401 KAR 51:017, combined consumption of #2 and #4 fuel oils for Emission Point 04 shall not exceed 1,015,000 gallons per year (12-month rolling average). To preclude the applicability of 40 CFR 51, Regional Haze Regulations and Guidelines for |

| | | |
|----|---|---|
| | | Best Available Retrofit Technology (BART) Determinations, combined Sulfur Dioxide emission for Emission Points 01, 02, and 03 from the consumption of #2 and #4 fuel oils shall not exceed 200 tons per year. Should such emissions ever exceed this annual limit for the specified boilers, then the provisions of 40 CFR 51 will apply for those units. |
| 05 | Production: monobutyltin (anhydrous); monobutyltin chloride (dry)/MIBK/ trifluoroacetic acid RX-05, TK-05, WT-05, CO-05 and DT-05. | To preclude the applicability of Regulation 401 KAR 51:017, the total volatile organic compound (VOC) emissions from these emissions units in Area 05 shall be less than 40 tons/yr. To preclude the applicability of Regulation 401 KAR 51:017, MBTC production will be limited to 21,000,000 pounds per year and the concentration of Dibutyl Ether (DBE) will be limited to 3,000 ppm or less in the butyl crudes raw material. |
| 48 | RX-48, TK-48 and PF-48 | To preclude the applicability of Regulation 401 KAR 51:017, the production of plastic stabilizers will be limited to 80,000,000 pounds per year. Production of MBTC via heptane process and solvent-based stabilizers will be discontinued. |
| 52 | Production: Tin recovery | Pursuant to 40 CFR 61, Subpart C, the beryllium emission rate shall not exceed 10 grams in 24 hours and 3650 grams per year. Pursuant to 40 CFR 61, Subpart E, the mercury emission rate shall not exceed 3200 grams in 24 hours and 1,168,000 grams per year. Pursuant to 401 KAR 59:020, Section 3(1), emissions of particulate matter shall not exceed 0.2 grains per dry standard cubic feet (gr/dscf) of exhaust gases corrected to twelve (12) percent carbon dioxide excluding the contribution of carbon dioxide from auxiliary fuel. |
| 55 | Production: Methyltins | General Condition 27d of construction permit C-97-001, issued March 26, 1997, provides a table of control and process equipment that must be in operation to avoid PSD. |

OPERATIONAL FLEXIBILITY:

B-55

The permittee controls VOC emissions from B-55 using a thermal oxidizer and caustic scrubber (IR-5519). With the issuance of this permit, the permittee has the option to control emissions using an alternate thermal oxidizer (IR-7401). The permittee will demonstrate that IR-7401 meets or exceeds the performance of IR-5519 for VOC control. All monitoring and recordkeeping requirements defined in Section E will continue to apply under this scenario. The permittee will notify the Division in writing prior to switching between the two thermal oxidizers.